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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/511,158	02/23/2000	Hidekazu Nakamoto	500.36898VX1	4119
20457 7:	590 11/15/2002			
ANTONELLI TERRY STOUT AND KRAUS SUITE 1800 1300 NORTH SEVENTEENTH STREET ARLINGTON, VA 22209			EXAMINER	
			LEUNG, JENNIFER A	
ARLINGTON, VA 22209			ART UNIT	PAPER NUMBER
			1764	

DATE MAILED: 11/15/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 07-01)

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  a) All b) Some * c) None of:  1. Certified copies of the priority documents have been received.  2. Certified copies of the priority documents have been received in Application No  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  * See the attached detailed Office action for a list of the certified copies not received.  14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  a) The translation of the foreign language provisional application has been received.  15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.  Attachment(s)  1) Notice of References Cited (PTO-892)		Application No.	Applicant(s)				
Jennifer A. Leung	Office Action Comments	09/511,158	NAKAMOTO ET AL.				
The MALING DATE of this communication appears on the cover sheet with the correspondence address → Period for Reply  A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MALING DATE OF THIS COMMUNICATION.  Extensions of our may be available used the provisions of J CFR 1.13(a), in rolevel, however, may a reply be timely filed  Extensions of our may be specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days, will be considered timely.  If the period for reply specified above is less than thirty (30) days, a reply with the statutory minimum of thirty (30) days, will be considered timely.  If the period for reply specified above is less than thirty (30) days, a reply with the statutory minimum of thirty (30) days, will be considered timely.  If the period for reply specified above is less than thirty (30) days, and a reply the timely filed, for this communication.  If the period for reply specified above is less than thirty (30) days, and the considered timely.  If the period for reply specified above is less than thirty (30) days, and the considered timely.  If the period for reply specified above is less than thirty (30) days, will be considered timely.  If the period for reply specified above is less than thirty (30) days, will be considered timely.  If the period for reply specified above, the maximum and the specified and the specified of this communication.  Prior (by received by the Office last from the specified and the spe	Oπice Action Summary	Examiner	Art Unit				
A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.  Extendents of the may be available under the provides of 3T CFR 1.136(s). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication is the period of maply specified abover, the maximum statutory grided will apply and will expire SIX (6) MONTHS from the mailing date of this communication.  If the period for maply is specified abover, the maximum statutory grided will apply and will expire SIX (6) MONTHS from the mailing date of this communication. The period of mapper specified before the specified abover. The maximum statutory grided will expire SIX (6) MONTHS from the mailing date of this communication, and the specified before the specified abover. The maximum statutory provided will expire SIX (6) MONTHS from the mailing date of this communication, and the specified before the specified abover. The maximum statutory mailing date of this communication, and the specified before the specified abover. The maximum statutory mailing date of this communication, and the specified before the specified and specifi							
THE MAILING DATE OF THIS COMMUNICATION.  Extensions of time may be available under the provision of 32 CFR 1.135(a). In no event, however, may a reply be timely filed of the CR (6) MCNTIS from the praising date of this communication of the CR (7) MCNTIS from the praising date of this communication.  Failure Ox reply as peculiar date where the maining date of this communication.  Failure to reply within the set or extended period for reply will, by stability, cause the application to become ABANDONEO (38 U.S.C. § 133).  Any tray traveled yie the Office and above, the maximum stablery period will be placed and the communication, even if timely filed, may reduce any.  Status  1) Responsive to communication(s) filed on	The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply						
2a)  This action is FINAL. 2b)  This action is non-final.  3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.  Disposition of Claims  4)  Claim(s)  1-5 is/are pending in the application.  4a) Of the above claim(s)  is/are withdrawn from consideration.  5)  Claim(s)  is/are allowed.  6)  Claim(s)  is/are rejected.  7)  Claim(s)  is/are objected to.  8)  Claim(s)  1-5 are subject to restriction and/or election requirement.  Application Papers  9)  The specification is objected to by the Examiner.  10)  The drawing(s) filed on  is/are: a)  accepted or b) objected to by the Examiner.  Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  11)  The proposed drawing correction filed on  is: a)  approved b) disapproved by the Examiner.  If approved, corrected drawings are required in reply to this Office action.  12)  The oath or declaration is objected to by the Examiner.  Priority under 35 U.S.C. §§ 119 and 120  13)  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  a)  All b)  Some * c)  None of:  1.  Certified copies of the priority documents have been received in Application No.  3.  Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  *See the attached detailed Office action for a list of the certified copies not received.  14)  Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  a)  The translation of the foreign language provisional application has been received.  15)  Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.	<ul> <li>THE MAILING DATE OF THIS COMMUNICATION.</li> <li>Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.</li> <li>If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.</li> <li>If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.</li> <li>Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).</li> <li>Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).</li> </ul>						
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## **DETAILED ACTION**

## Election/Restrictions

- 1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 1-4, drawn to an apparatus, classified in class 422, subclass ---.
  - II. Claim 5, drawn to a process, classified in class 526, subclass 64.

The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case, the apparatus as claimed can be used to practice another and materially different process, such hydrocarbon refining, waste gas purification, calcination of solids, or any other general chemical processes requiring heating and/or mixing means.

- If applicant elects group I, restriction to one of the following inventions is required under 2. 35 U.S.C. 121:
  - IA. Claims 1-2, drawn to an apparatus, classified in class 422, subclass 224.
  - IB. Claim 3, drawn to an apparatus, classified in class 422, subclass 198.
  - IC. Claim 4, drawn to an apparatus, classified in class 422, subclass 198.

The inventions are distinct, each from the other because of the following reasons:

Inventions IA and IB are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case, the

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different inventions are not connected in design, operation, or effect and therefore the facts relied on for this conclusion are in essence the reasons for insisting upon restriction.

Inventions IA and IC are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case, the different inventions are not connected in design, operation, or effect and therefore the facts relied on for this conclusion are in essence the reasons for insisting upon restriction.

Inventions IB and IC are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case, the different inventions are not connected in design, operation, or effect and therefore the facts relied on for this conclusion are in essence the reasons for insisting upon restriction.

- 3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, recognized divergent subject matter, and search required for Group IA not required for Group IB, Group IA not required for Group IC, and Group IB not required for Group IC, restriction for examination purposes as indicated is proper.
- Applicant is advised that the reply to this requirement to be complete must include an 4. election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).
- Applicant is reminded that upon the cancellation of claims to a non-elected invention, the 5. inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the

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currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

## Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer A. Leung whose telephone number is 703-305-4951. The examiner can normally be reached on 8:30 am - 5:30 pm M-F, every other Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn A. Caldarola can be reached on 703-308-6824. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

Jennifer A. Leung November 14, 2002

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